

Build a columned room divider

Use MDF panels and wood molding to transform your entry
with a stately new built-in By CODY CALAMAIO + Photographs by RYAN BENYI

Cost: \$150

Time: Two 8-hour days

Difficulty: Medium. Stacking built boxes saves time, but your mitering skills must be sharp.

Not every home is blessed with a grand entryway. If your front door swings open directly into the living space, it can make for rather abrupt arrivals. A columned room divider creates an architectural feature that will gently redirect foot traffic while providing extra storage for books or even boots. Follow along with *This Old House* contributor Christopher Beidel, owner of Pernt, a handmade-furniture company in Brooklyn, New York, as he shows you how to construct a partition that will look right at home in your place.



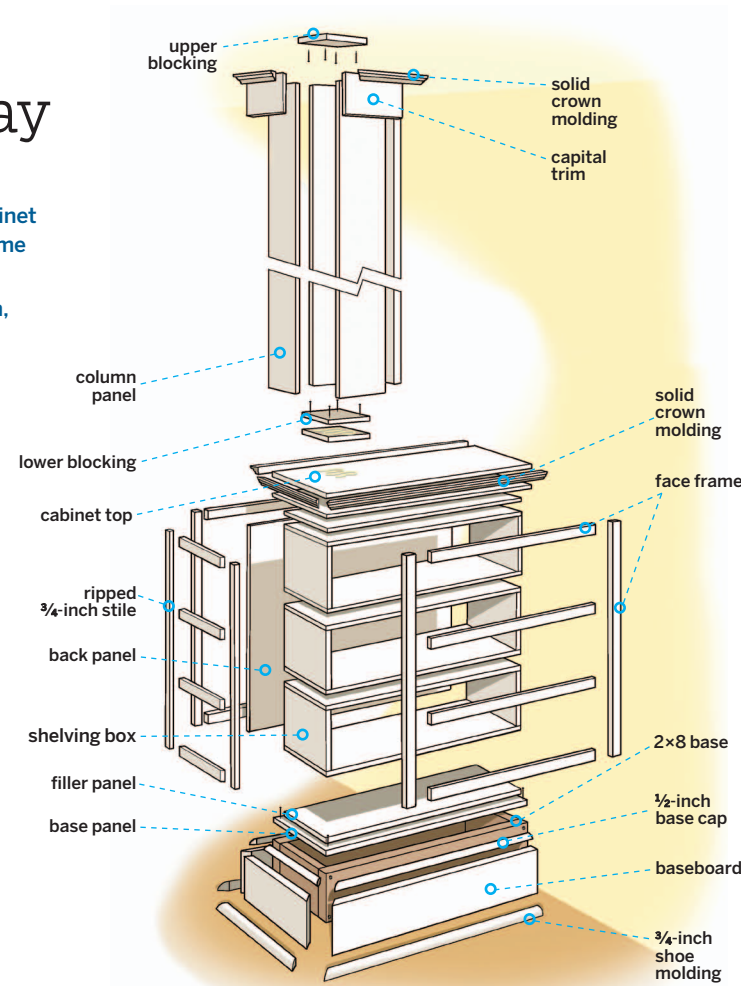
For complete
instructions, turn
the page



Day-to-day timeline

SATURDAY Stack the cabinet boxes and add the face frame (Steps 1–4).

SUNDAY Build the column, and cut and install the trim (Steps 5–7).



tools

- tape measure
- straightedge
- clamps
- circular saw
- caulk gun
- drill/driver
- countersink bit
- 4-foot level
- pneumatic brad nailer and air compressor
- combination square
- miter saw

materials

- 3/4-inch medium-density fiberboard (MDF) Get three 4-by-8-foot sheets for an 8 1/2-foot ceiling.
- 2x8 lumber to build the base
- shims
- solid crown molding to trim the capital and the cabinet top
- baseboard molding
- 1/2-inch and 3/4-inch quarter-round molding for the base cap and shoe molding
- 1 1/2-inch MDF screws to assemble the boxes
- 2 1/2-inch deck screws to install the base and the blocking
- 1 1/4-inch brad nails
- construction adhesive
- wood filler and paintable caulk
- primer and paint

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1. Build the boxes

A. Cut the parts. The body of the cabinet is made up of three identical boxes stacked on top of one another to form shelves. Take your MDF stock, clamp a straightedge in place, and use a circular saw to cut each piece according to the cut list at thisoldhouse.com/bonus. Also cut the four base pieces; we used 2x8s to match the height of the existing 1x8 baseboard.

B. Assemble the boxes. For each box, the top and bottom capture the sides. Lay the bottom piece on a workbench, run a bead of construction adhesive along the edge of one side piece, then clamp it upright to form an L with the bottom. Repeat on the other end. Tip the assembly so that you can countersink pilot holes for 1 1/2-inch MDF screws through the bottom and into the edges of the sides. Drive the screws and remove the clamps. Set the assembly upright. Apply construction adhesive to the top edges of the sides, and set the top in place. Clamp it down at each side, countersink pilot holes, and screw it in place, as shown.



2. Install the base

A. Level the base. Build the 2x8 base with 2 1/2-inch deck screws. Remove any existing baseboard molding from the wall, place the base directly on the floor and against the wall, and shim it level. Rest a 4-foot level diagonally across the corners, as shown, to check for level.

B. Attach the base. Fasten the base to the floor by toenailing deck screws through the exposed end of the base and the shims, as shown. Screw through the other end of the base and into the wall. Then score the shims and snap them off.



Tip Slide the shims from the inside of the base outward so that the screws will catch the meatier ends. This also makes it easier to snap off the exposed, thinner ends of the shims.



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3. Stack the layers

A. Cap the base. Run a bead of construction adhesive along the top of the base and cover it with a panel of MDF. Countersink pilot holes and drive MDF screws through the panel to secure it. Then, to account for the height of the 1x2 face-frame trim, add an MDF filler panel. Use scrap trim to inset it 3/4 inch from the front and the end; inset it 1 1/2 inches along the back edge to accommodate the back panel plus the trim. And to allow for out-of-plumb walls, leave a 3/4-inch gap at the wall end; it will be covered by a face-frame stile in Step 4A. Secure the filler panel with construction adhesive and countersunk MDF screws at each corner.

B. Stack the boxes. Apply construction adhesive on top of the filler panel and stack the first box, aligned at the edges. Tack it in place with a pneumatic brad nailer and 1 1/4-inch brad nails. Stack and fasten the next two boxes in the same way. Shim the gap between the top box and the wall, then drive at least one deck screw through the box and shims and into a stud or an anchor. Make sure the top box is level, then glue and nail another filler panel on top.

C. Attach the back. Measure and cut an MDF panel to cover the back of the stack and meet the wall. Apply construction adhesive to the back edges of the boxes, and clamp the panel in place. Countersink pilot holes and secure the panel with MDF screws.





4. Finish the cabinet

A. Install the face frame. We ripped 1½-inch strips from leftover ¾-inch MDF, but you could also use 1×2 trim. Either way, measure and cut the front and back stiles to length. If necessary, scribe and trim the wall-side stiles to follow the wall's contour. For the outside stiles, use a scrap of ¾-inch MDF to stand in for the abutting stile to be installed in the next step, as shown. Glue and nail the stiles in place; they should end up flush with the inside edges of the shelves on the front.

B. Rip the end stiles. To make the trim end up the same width on both sides of the corners where the stiles meet, rip two pieces ¾ inch wide. Glue and nail them in place, as shown. Now measure, cut, and install the four front rails, four end rails, and two back rails.

C. Install the top. Measure and cut two additional panels of MDF sized to sit flush with the face frame. Glue and nail them in place. This last layer serves as your cabinet top and as a nailing surface for the solid crown molding that goes on in Step 7B.



5. Lay out the column

A. Install the lower blocking. To find the location for the column's two lower nailing blocks, subtract the width of a block from the width of the cabinet top, then divide the result in half. Use a combination square to transfer this measurement to three sides of the cabinet top, as shown. Glue and screw the blocks in place, one at a time.

B. Size the column. Measure the distance between the cabinet and your ceiling and cut the four MDF column panels to fit. Two should be the same width as the lower blocking, and the other two 1½ inches wider to capture the edges of the first two. Clamp the base of one of the panels to the blocking, then clamp a 4-foot level to its face. Plumb the panel, then mark where its inside face meets the ceiling, as shown.



see how it's done

To watch a video of this project, including extra footage of working around a receptacle, go to thisoldhouse.com/bonus

FOR MORE INFORMATION, SEE DIRECTORY, PAGE 98

6. Install the column

A. Mount the upper blocking. Run a line of construction adhesive along the edge of an abutting column panel, and join it to the first to form a corner. Nail the joint together. Clamp a level to the new piece and check both levels to plumb the column assembly. Apply construction adhesive to the block and position it into the L-shaped crook, then drill pilot holes and screw it to the ceiling with deck screws. We were lucky enough to catch a ceiling joist, but you may need to use toggle bolts to fasten the block securely.

B. Assemble the column. Countersink pilot holes through the tops of the column assembly and into the upper blocking, then screw them in place with MDF screws. At the bottom, tack the panels to the lower blocking with brad nails. Then glue and secure the two remaining sides of the column in the same fashion.



7. Trim out the divider

A. Install the capital. To finish the top of the column, measure and cut the capital pieces to fit. Use clamps to hold the longer pieces in place, to give you something to butt the shorter pieces into. Glue and nail each piece in place.

B. Install the crown. To trim the top of the capital, measure one side, use a miter saw to cut a piece of solid crown molding at 45 degrees on each end, and install it with adhesive and brad nails. Continue measuring, cutting, and installing each side as you go. To trim the cabinet top, measure its long edges and miter-cut

pieces of crown to fit—90 degrees at the wall and 45 degrees at the end. Glue and nail them in place. Measure and miter-cut the end piece to fit between the two mitered ends, then install it with adhesive and brad nails.

C. Install the baseboard molding. Follow the same approach to install the baseboard: front and back first, then the piece that's mitered on both ends. Cut pieces to fit along the exposed wall and install those. Install the base cap—½-inch quarter-round molding in this case—the same way. Then cover any gaps along the floor by installing the ¾-inch shoe molding. Finally, fill the nail holes and caulk the joints and seams, sand everything smooth, and prime and paint the entire structure. ■

